

CLAIMS

1. A method of manufacturing a molded container, the method comprising
5 inserting an image-carrying sheet into a mold cavity of a female die so that a bottom edge of the image-carrying sheet rests upon a set of stand-offs situated in the mold cavity,
placing a male die into the mold cavity so that a plastic-receiving space is defined between the male die and the female die, and
10 injecting molten plastic into the plastic-receiving space so that the molten plastic coats a back surface of the image-carrying sheet and flows around the bottom edge, a top edge and side edges of the image-carrying sheet including flowing into spaces defined beneath the bottom edge of the image-carrying sheet and between the stand-offs resulting in the molded container having notches formed in a bottom
15 edge of a main container wall of the container.
2. The method of claim 1, wherein injecting molten plastic into the plastic-receiving space comprises injecting molten plastic into a disk-like portion of the plastic-receiving space so that some of the molten plastic flows out of the disk-like portion and downwardly toward the bottom edge of the image-carrying sheet.
- 20 3. The method of claim 2, wherein injecting molten plastic into the plastic-receiving space comprises injecting molten plastic into an annular portion of the plastic-receiving space that is situated beneath the disk-like portion of the plastic-receiving space so that some of the molten plastic flows upwardly in the annular portion before reaching the disk-like portion.
- 25 4. The method of claim 3, wherein during injecting molten plastic into the plastic-receiving space the molten plastic flows over an upper surface of an annular ridge wall of the female die prior to the molten plastic reaching the image-carrying sheet, the upper surface of the annular ridge wall being situated beneath the disk-like portion of the plastic-receiving space, and the upper surface of the annular
30 ridge wall being situated above the annular portion of the plastic-receiving space.

5. The method of claim 2, wherein injecting molten plastic into the plastic-receiving space comprises injecting molten plastic into a domed central region of the disk-like portion of the plastic-receiving space.

6. The method of claim 1, wherein inserting the image-carrying
5 sheet into the mold cavity of the female die comprises inserting a lenticular lens sheet into the mold cavity.

7. The method of claim 1, wherein inserting the image-carrying sheet into the mold cavity comprises curling the image-carrying sheet so that after insertion into the mold cavity, a front surface of the image-carrying sheet abuts a
10 frustoconical surface of the female die.

8. The method of claim 1, further comprising coupling to the female die a gate that includes the stand-offs prior to inserting the image-carrying sheet into the mold cavity.

9. A method of manufacturing a molded container, the method
15 comprising
inserting an image-carrying sheet into a mold cavity of a die set so that a bottom edge of the image-carrying sheet is positioned to lie below an upwardly facing surface of the die set that extends radially with respect to a central axis defined by the mold cavity,

20 inserting a male die of the die set into the mold cavity so that a plastic-receiving space is defined between the male die and the female die, the plastic-receiving space comprising a horizontal disk-like portion defined between a downwardly facing surface of the male die that is positioned below a top edge of the image-carrying sheet and above the upwardly facing surface in confronting,
25 spaced-apart relation therewith, and

injecting molten plastic into the plastic-receiving space so that the molten plastic flows through the horizontal disk-like portion radially outwardly toward the image-carrying sheet, so that a first quantity of the molten plastic exiting the horizontal disk-like portion flows downwardly toward the bottom edge of the
30 image-carrying sheet and so that a second quantity of the molten plastic exiting the horizontal disk-like space flows upwardly toward the top edge of the image-carrying sheet.

10. The method of claim 9, wherein inserting the image-carrying sheet into the mold cavity of the die set comprises inserting the image-carrying sheet into the mold cavity of the die set so that the bottom edge of the image-carrying sheet rests upon a set of stand-offs situated in the mold cavity.

5 11. The method of claim 10, further comprising coupling to the die set a gate that includes the stand-offs prior to inserting the image-carrying sheet into the mold cavity.

12. The method of claim 9, wherein inserting the image-carrying sheet into the mold cavity of the die set comprises inserting a lenticular lens sheet into
10 the mold cavity.

13. The method of claim 9, wherein inserting the image-carrying sheet into the mold cavity comprises curling the image-carrying sheet so that after insertion into the mold cavity, a front surface of the image-carrying sheet abuts a frustoconical surface of the die set.

15 14. The method of claim 9, wherein injecting molten plastic into the plastic-receiving space comprises injecting molten plastic into an annular portion of the plastic-receiving space that is situated beneath the disk-like portion of the plastic-receiving space so that some of the molten plastic flows upwardly in the annular portion before reaching the disk-like portion.

20 15. The method of claim 10, wherein the upwardly-facing surface of the die set is provided by an annular ridge wall and during injecting molten plastic into the plastic-receiving space the molten plastic flows up from the annular portion of the plastic-receiving space and over the annular ridge wall prior to reaching the image-carrying sheet.

25 16. The method of claim 9, wherein injecting molten plastic into the plastic-receiving space comprises injecting molten plastic into a domed central region of the disk-like portion of the plastic-receiving space.

17. A method of manufacturing a molded container, the method comprising
30 positioning an image-carrying sheet in an upper annular portion of a plastic-receiving space of a die set such that a bottom edge of the image-carrying sheet is situated below an upper disk-like portion of the plastic-receiving space, and

injecting molten plastic into the plastic-receiving space of the die set so that molten plastic (i) flows radially outwardly in a lower disk-like portion of the plastic-receiving, (ii) flows upwardly in a lower portion of the plastic-receiving space, (iii) flows radially outwardly in the upper disk-like portion of the plastic-receiving space, and (iv) flows into the upper annular portion of the plastic-receiving space to coat a back surface, the bottom edge, and a top edge of the image-carrying sheet.

18. The method of claim 17, wherein positioning the image-carrying sheet in the upper annular portion of the plastic-receiving space comprises positioning a bottom edge of the image-carrying sheet on a set of stand-offs.

10 19. The method of claim 17, wherein during injecting molten plastic into the plastic-receiving space, molten plastic flows upwardly in a frustoconical subportion of the lower portion of the plastic-receiving space and then upwardly in a bowl-shaped subportion of the lower portion of the plastic-receiving space.

15 20. The method of claim 17, wherein during injecting molten plastic into the plastic-receiving space, molten plastic flows upwardly in a frustoconical subportion of the lower portion that extends between the lower disk-like portion and the upper disk-like portion of the plastic-receiving space.